

REMARKS

I. Status of the Application

Claims 1-23 were filed in the original application. Claim 24 was added in the Amendment mailed April 19, 2004, and Claims 25-30 were added in the Amendment mailed December 14, 2004. Without acquiescing to the Examiner's arguments and in order to expedite prosecution of the application, Claims 2-4, 7-19, 21, and 23 were canceled in the Amendment mailed April 19, 2004. Applicants reserve the right to prosecute these or similar claims in the future. Claims 25-30 were withdrawn from consideration in the Office Action mailed September 29, 2005. Applicants reserve the right to prosecute these or similar claims in the future. Claim 1 has been amended herein. Support for the amendment can be found throughout the application, for example, at pages 5-6, lines 28-31 and lines 1-6, respectively.

Thus, Claims 1, 5-6, 20, 22, and 24 are pending in the application.

II. Amended Claim 1 is Not Anticipated by Levin *et al.*

The Examiner rejected Claim 1 under 35 U.S.C. §102(e) as allegedly being anticipated by Levin *et al.* (U.S. Pat. No. 6,432,365). Applicants respectfully disagree.

Nonetheless, Applicants herein amend Claim 1 in order to further the prosecution of the present application, yet without acquiescing to the Examiner's arguments, and while reserving the right to prosecute the original or similar claims in the future. As amended, Claim 1 recites "An oligonucleotide synthesizer comprising a reaction chamber and a lid enclosure, said lid enclosure containing a ventilation system..."

Levin *et al.* does not disclose all elements of amended Claim 1. Applicants respectfully request that amended Claim 1 be passed to allowance.

III. The Claims are Not Obvious

In the Office Action mailed September 29, 2005, the Examiner rejected Claims 5 and 6 under 35 U.S.C. §103(a) as allegedly being unpatentable over Levin *et al.* (U.S. Pat. No. 6,432,365) and Claims 20, 22 and 24 as allegedly being unpatentable over McGowan *et al.* (U.S. Pat. No. 6,238,627) in view of Heyneker *et al.* (U.S. Pat. No. 6,264,891). Applicants respectfully disagree.

A *prima facie* case of obviousness requires the Examiner to provide a reference(s) which (a) discloses all of the elements of the claimed invention, (b) suggests or motivates one skilled in the art to combine the claimed elements to produce the claimed combination, and (c) provides a reasonable expectation of success should the claimed combination be carried out. Failure to establish any one of these three requirements precludes a finding of a *prima facie* case of obviousness and without more entitles Applicants to allowance of the claims in issue.¹ Applicants respectfully submit that the cited references are not properly combined.

A. Claims 5 and 6 Are Non-Obvious

The Examiner rejected Claims 5 and 6 under 35 U.S.C. §103(a) as being unpatentable over Levin *et al.* (U.S. Pat. No. 6,432,364). However, as described in detail above, amended claim 1 is not anticipated by Levin *et al.* Thus, because Levin *et al.* does not teach or suggest all elements of the present invention, a *prima facie* case of obviousness can not be established (MPEP §2143.01). Applicants respectfully request this rejection be withdrawn.

B. Claims 20, 22 and 24 Are Non-Obvious

The Examiner rejected Claims 20, 22 and 24 under 35 U.S.C. § 103(a) as being unpatentable over McGowan *et al.* (6,328,627) in view of Heyneker *et al.* (6,264,981). Applicants respectfully disagree.

There is no basis for combining the McGowan *et al.* and Heyneker *et al.* references.

A recent Federal Circuit case explicitly discusses the standards for establishing motivation to combine. (*See, In re Lee*, 277 F.3d 1338 (Fed. Cir. 2002)). Specifically, the Federal Circuit held that:

The factual inquiry whether to combine references must be thorough and searching. It must be based on **objective evidence** of record. **This precedent has been reinforced in myriad decisions, and cannot be dispensed with.**²

Furthermore, an Examiner may not simply rely on conclusory statements even for what they think might be common sense or well known in the art:

The 'common knowledge and common sense' on which the Board relied in rejecting Lee's application are not the specialized knowledge and expertise contemplated by the

¹ See, e.g., *Northern Telecom Inc. v. Datapoint Corp.*, 15 USPQ2d 1321, 1323 (Fed. Cir. 1990).

² See, *In re Lee*, 277 F.3d 1338, 1344 (Fed. Cir. 2002); internal citations omitted; emphasis added.

Administrative Procedure Act. Conclusory statements such as those here provided do not fulfill the agency's obligation. This court explained in *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697 that 'deficiencies of the cited references cannot be remedied by the Board's general conclusions about what is 'basic knowledge' or 'common sense.' The Board's findings must extend to all material facts and must be documented on record, lest the 'haze of so-called expertise' acquire insulation from accountability. 'Common knowledge and common sense,' even if assumed to derive from the agency's expertise, do not substitute for authority when the law requires authority.³

However, instead of providing an objective teaching or suggestion to combine the references, the Examiner has opined:

- a) "It would have been obvious to one of ordinary skill in the art to combine the vacuum system of Heyneker et al. with the block of McGowan. One would add the vacuum system of Heyneker in order to use a vacuum to remove fluids from the system."⁴;
- b) "It is this feature – the vacuum system for draining the reaction vessels from the bottom – which the Examiner considers to be obvious to one of ordinary skill in the art to add to the reaction block of McGowan...The Examiner believes this feature may be added to the reaction block of McGowan for removal of materials from the reaction vessels and still allow for the use of cooling gas in the upper section of the block."⁵;
- c) "The Examiner believes that Heyneker still provides a teaching of vacuum use that would lead one of ordinary skill in the art to attach a vacuum to the lid of McGowan...Therefore, the Examiner believes that one of ordinary skill in the art would recognize that it would be obvious to also provide a vacuum source for the port (34) to collect the gas in the contained space as taught by Heyneker."⁶; and
- d) that "the Examiner believes that one of ordinary skill in the art would certainly recognize that the use of the vacuum drain from the enclosed system of Heyneker would be advantageous to add to McGowan's block."⁷

Each of these statements is an example of conclusory reasoning, based only on hindsight reconstruction of the claimed invention. This is precisely the type of rejection that the Federal

³*Id.* at 1344-1345.

⁴ Office Action mailed October 27, 2003, ¶ 11 (page 6, lines 8-11).

⁵ Office Action mailed July 14, 2004, ¶ 8 (pages 5 and 6, lines 18-22 and 1-2, respectively).

⁶ Office Action mailed March 10, 2005, ¶ 10 (page 6, lines 6-8 and 12-14).

⁷ Office Action mailed September 29, 2005, ¶ 9 (page 6, lines 3-5).


Circuit has forbidden (e.g., See in *In re Lee*, supra). The Examiner has provided no "objective evidence of record" as required by the Federal Circuit. This is not surprising, since McGowan and Heyneker are directed to different technologies, and neither reference, alone or combined, teaches or suggests a ventilation system comprising a ventilation tube, a lid enclosure on a nucleic acid synthesizer, and a vacuum source connected to the ventilation tube.

Applicants have specifically pointed out the Examiner's inability to cite to a prior art reference containing a suggestion or motivation to combine these references. Applicants submit that the Examiner has failed to meet the requirements for establishing a case of *prima facie* obviousness. Applicants respectfully request this rejection be withdrawn.

CONCLUSION

For the reasons set forth above, it is respectfully submitted that Applicants have addressed all grounds for rejection and Applicants' claims as amended should be passed to allowance. Should the Examiner have any questions, or if a telephone conference would aid in the prosecution of the present application, Applicant encourages the Examiner to call the undersigned collect at 608-218-6900.

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